



General Assembly

February Session, 2010

Raised Bill No. 5217

LCO No. 1024

01024_____ET_

Referred to Committee on Energy and Technology

Introduced by:
(ET)

AN ACT CONCERNING ENERGY EFFICIENT PRODUCTS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. Section 16a-48 of the general statutes is repealed and the
2 following is substituted in lieu thereof (*Effective from passage*):

3 (a) As used in this section:

4 (1) "Office" means the Office of Policy and Management;

5 (2) "Fluorescent lamp ballast" or "ballast" means a device designed
6 to operate fluorescent lamps by providing a starting voltage and
7 current and limiting the current during normal operation, but does not
8 include such devices that have a dimming capability or are intended
9 for use in ambient temperatures of zero degrees Fahrenheit or less or
10 have a power factor of less than sixty-one hundredths for a single
11 F40T12 lamp;

12 (3) "F40T12 lamp" means a tubular fluorescent lamp that is a
13 nominal forty-watt lamp, with a forty-eight-inch tube length and one
14 and one-half inches in diameter;

15 (4) "F96T12 lamp" means a tubular fluorescent lamp that is a
16 nominal seventy-five-watt lamp with a ninety-six-inch tube length and
17 one and one-half inches in diameter;

18 (5) "Luminaire" means a complete lighting unit consisting of a
19 fluorescent lamp, or lamps, together with parts designed to distribute
20 the light, to position and protect such lamps, and to connect such
21 lamps to the power supply;

22 (6) "New product" means a product that is sold, offered for sale, or
23 installed for the first time and specifically includes floor models and
24 demonstration units;

25 (7) "Secretary" means the Secretary of the Office of Policy and
26 Management;

27 (8) "State Building Code" means the building code adopted
28 pursuant to section 29-252;

29 (9) "Torchiere lighting fixture" means a portable electric lighting
30 fixture with a reflector bowl giving light directed upward so as to give
31 indirect illumination;

32 (10) "Unit heater" means a self-contained, vented fan-type
33 commercial space heater that uses natural gas or propane that is
34 designed to be installed without ducts within the heated space. "Unit
35 heater" does not include a product regulated by federal standards
36 pursuant to 42 USC 6291, as amended from time to time, a product that
37 is a direct vent, forced flue heater with a sealed combustion burner, or
38 any oil fired heating system;

39 (11) "Transformer" means a device consisting of two or more coils of
40 insulated wire that transfers alternating current by electromagnetic
41 induction from one coil to another in order to change the original
42 voltage or current value;

43 (12) "Low-voltage dry-type transformer" means a transformer that:

44 (A) Has an input voltage of six hundred volts or less; (B) is between
45 fourteen kilovolt-amperes and two thousand five hundred one
46 kilovolt-amperes in size; (C) is air-cooled; and (D) does not use oil as a
47 coolant. "Low-voltage dry-type transformer" does not include such
48 transformers excluded from the low-voltage dry-type distribution
49 transformer definition contained in the California Code of Regulations,
50 Title 20: Division 2, Chapter 4, Article 4: Appliance Efficiency
51 Regulations;

52 (13) "Pass-through cabinet" means a refrigerator or freezer with
53 hinged or sliding doors on both the front and rear of the refrigerator or
54 freezer;

55 (14) "Reach-in cabinet" means a refrigerator, freezer, or combination
56 thereof, with hinged or sliding doors or lids;

57 (15) "Roll-in" or "roll-through cabinet" means a refrigerator or
58 freezer with hinged or sliding doors that allows wheeled racks of
59 product to be rolled into or through the refrigerator or freezer;

60 (16) "Commercial refrigerators and freezers" means reach-in
61 cabinets, pass-through cabinets, roll-in cabinets and roll-through
62 cabinets that have less than eighty-five feet of capacity, which are
63 designed for the refrigerated or frozen storage of food and food
64 products;

65 (17) "Traffic signal module" means a standard eight-inch or twelve-
66 inch round traffic signal indicator consisting of a light source, lens and
67 all parts necessary for operation and communication of movement
68 messages to drivers through red, amber and green colors;

69 (18) "Illuminated exit sign" means an internally illuminated sign that
70 is designed to be permanently fixed in place and used to identify an
71 exit by means of a light source that illuminates the sign or letters from
72 within where the background of the exit sign is not transparent;

73 (19) "Packaged air-conditioning equipment" means air-conditioning

74 equipment that is built as a package and shipped as a whole to end-
75 user sites;

76 (20) "Large packaged air-conditioning equipment" means air-cooled
77 packaged air-conditioning equipment having not less than two
78 hundred forty thousand BTUs per hour of capacity;

79 (21) "Commercial clothes washer" means a soft mount front-loading
80 or soft mount top-loading clothes washer that is designed for use in
81 (A) applications where the occupants of more than one household will
82 be using it, such as in multifamily housing common areas and coin
83 laundries; or (B) other commercial applications, if the clothes container
84 compartment is no greater than three and one-half cubic feet for
85 horizontal-axis clothes washers or no greater than four cubic feet for
86 vertical-axis clothes washers;

87 (22) "Energy efficiency ratio" means a measure of the relative
88 efficiency of a heating or cooling appliance that is equal to the unit's
89 output in BTUs per hour divided by its consumption of energy,
90 measured in watts;

91 (23) "Electricity ratio" means the ratio of furnace electricity use to
92 total furnace energy use;

93 (24) "Boiler" means a space heater that is a self-contained appliance
94 for supplying steam or hot water primarily intended for space-heating.
95 "Boiler" does not include hot water supply boilers;

96 (25) "Central furnace" means a self-contained space heater designed
97 to supply heated air through ducts of more than ten inches in length;

98 (26) "Residential furnace or boiler" means a product that utilizes
99 only single-phase electric current or single-phase electric current or DC
100 current in conjunction with natural gas, propane or home heating oil
101 and that (A) is designed to be the principal heating source for the
102 living space of a residence; (B) is not contained within the same cabinet
103 as a central air conditioner with a rated cooling capacity of not less

104 than sixty-five thousand BTUs per hour; (C) is an electric central
105 furnace, electric boiler, forced-air central furnace, gravity central
106 furnace or low pressure steam or hot water boiler; and (D) has a heat
107 input rate of less than three hundred thousand BTUs per hour for an
108 electric boiler and low pressure steam or hot water boiler and less than
109 two hundred twenty-five thousand BTUs per hour for a forced-air
110 central furnace, gravity central furnace and electric central furnace;

111 (27) "Furnace air handler" means the section of the furnace that
112 includes the fan, blower and housing, generally upstream of the
113 burners and heat exchanger. The furnace air handler may include a
114 filter and a cooling coil;

115 (28) "High-intensity discharge lamp" means a lamp in which light is
116 produced by the passage of an electric current through a vapor or gas,
117 the light-producing arc is stabilized by bulb wall temperature and the
118 arc tube has a bulb wall loading in excess of three watts per square
119 centimeter;

120 (29) "Metal halide lamp" means a high intensity discharge lamp in
121 which the major portion of the light is produced by radiation of metal
122 halides and their products of dissociation, possibly in combination
123 with metallic vapors;

124 (30) "Metal halide lamp fixture" means a light fixture designed to be
125 operated with a metal halide lamp and a ballast for a metal halide
126 lamp;

127 (31) "Probe start metal halide ballast" means a ballast used to
128 operate metal halide lamps that does not contain an ignitor and that
129 instead starts lamps by using a third starting electrode probe in the arc
130 tube;

131 (32) "Single voltage external AC to DC power supply" means a
132 device that (A) is designed to convert line voltage AC input into lower
133 voltage DC output; (B) is able to convert to only one DC output voltage

134 at a time; (C) is sold with, or intended to be used with, a separate end-
135 use product that constitutes the primary power load; (D) is contained
136 within a separate physical enclosure from the end-use product; (E) is
137 connected to the end-use product in a removable or hard-wired male
138 and female electrical connection, cable, cord or other wiring; (F) does
139 not have batteries or battery packs, including those that are removable
140 or that physically attach directly to the power supply unit; (G) does not
141 have a battery chemistry or type selector switch and indicator light or a
142 battery chemistry or type selector switch and a state of charge meter;
143 and (H) has a nameplate output power less than or equal to two
144 hundred fifty watts;

145 (33) "State regulated incandescent reflector lamp" means a lamp that
146 is not colored or designed for rough or vibration service applications,
147 has an inner reflective coating on the outer bulb to direct the light, has
148 an E26 medium screw base, a rated voltage or voltage range that lies at
149 least partially within one hundred fifteen to one hundred thirty volts,
150 and that falls into one of the following categories: (A) A bulged
151 reflector or elliptical reflector or a blown PAR bulb shape and that has
152 a diameter that equals or exceeds two and one-quarter inches, or (B) a
153 reflector, parabolic aluminized reflector, bulged reflector or similar
154 bulb shape and that has a diameter of two and one-quarter to two and
155 three-quarters inches. "State regulated incandescent reflector lamp"
156 does not include ER30, BR30, BR40 and ER40 lamps of not more than
157 fifty watts, BR30, BR40 and ER40 lamps of sixty-five watts and R20
158 lamps of not more than forty-five watts;

159 (34) "Bottle-type water dispenser" means a water dispenser that uses
160 a bottle or reservoir as the source of potable water;

161 (35) "Commercial hot food holding cabinet" means a heated, fully-
162 enclosed compartment with one or more solid or partial glass doors
163 that is designed to maintain the temperature of hot food that has been
164 cooked in a separate appliance. "Commercial hot food holding cabinet"
165 does not include heated glass merchandizing cabinets, drawer

166 warmers or cook-and-hold appliances;

167 (36) "Pool heater" means an appliance designed for heating
168 nonpotable water contained at atmospheric pressure for swimming
169 pools, spas, hot tubs and similar applications, including natural gas,
170 heat pump, oil and electric resistance pool heaters;

171 (37) "Portable electric spa" means a factory-built electric spa or hot
172 tub supplied with equipment for heating and circulating water;

173 (38) "Residential pool pump" means a pump used to circulate and
174 filter pool water to maintain clarity and sanitation;

175 (39) "Walk-in refrigerator" means a space refrigerated to
176 temperatures at or above thirty-two degrees Fahrenheit that has a total
177 chilled storage area of less than three thousand square feet, can be
178 walked into and is designed for the refrigerated storage of food and
179 food products. "Walk-in refrigerator" does not include refrigerated
180 warehouses and products designed and marketed exclusively for
181 medical, scientific or research purposes;

182 (40) "Walk-in freezer" means a space refrigerated to temperatures
183 below thirty-two degrees Fahrenheit that has a total chilled storage
184 area of less than three thousand square feet, can be walked into and is
185 designed for the frozen storage of food and food products. "Walk-in
186 freezer" does not include refrigerated warehouses and products
187 designed and marketed exclusively for medical, scientific or research
188 purposes;

189 (41) "Central air conditioner" means a central air conditioning model
190 that consists of one or more factory-made assemblies, which normally
191 include an evaporator or cooling coil, compressor and condenser.
192 Central air conditioning models may provide the function of air
193 cooling, air cleaning, dehumidifying or humidifying; [.]

194 (42) "Combination TV" means a system in which a television or
195 television monitor and an additional device or devices, including, but

196 not limited to, a DVD player or VCR, are combined into a single unit in
197 which the additional devices are included in the television casing;

198 (43) "Compact audio player" means an integrated audio system
199 encased in a single housing that includes an amplifier and radio tuner
200 with attached or separable speakers and can reproduce audio from one
201 or more of the following media: Magnetic tape, CD, DVD or flash
202 memory. "Compact audio player" does not mean a product that can be
203 independently powered by internal batteries or that has a powered
204 external satellite antenna or that can provide a video output signal;

205 (44) "Component TV" means a television composed of two or more
206 separate components, such as a separate display device and tuner,
207 marked and sold as a television under one model or system
208 designation, which may have more than one power cord;

209 (45) "Computer monitor" means an analog or digital device
210 designed primarily for the display of computer generated signals and
211 that is not marketed for use as a television;

212 (46) "Digital versatile disc (DVD)" means a laser-encoded plastic
213 medium capable of storing a large amount of digital audio, video and
214 computer data;

215 (47) "Digital versatile disc (DVD) player" means a commercially
216 available electronic product encased in a single housing that includes
217 an integral power supply and for which the sole purpose is the
218 decoding of digitized video signals;

219 (48) "Digital versatile disc (DVD) recorder" means a commercially
220 available electronic product encased in a single housing that includes
221 an integral power supply and for which the sole purpose is the
222 production or recording of digitized video signals on a DVD. "DVD
223 recorder" does not include a model that has an EPG function;

224 (49) "Television (TV)" means an analog or digital device designed
225 primarily for the display and reception of a terrestrial, satellite, cable,

226 internet protocol TV or other broadcast or recorded transmission of
227 analog or digital video and audio signals. "TV" includes combination
228 TVs, television monitors, component TVs and any unit that is
229 marketed to consumers as a TV but does not include a computer
230 monitor;

231 (50) "Television monitor" means a TV that does not have an internal
232 tuner/receiver or playback device.

233 (b) The provisions of this section apply to the testing, certification
234 and enforcement of efficiency standards for the following types of new
235 products sold, offered for sale or installed in the state: (1) Commercial
236 clothes washers; (2) commercial refrigerators and freezers; (3)
237 illuminated exit signs; (4) large packaged air-conditioning equipment;
238 (5) low voltage dry-type distribution transformers; (6) torchiere
239 lighting fixtures; (7) traffic signal modules; (8) unit heaters; (9)
240 residential furnaces and boilers; (10) residential pool pumps; (11) metal
241 halide lamp fixtures; (12) single voltage external AC to DC power
242 supplies; (13) state regulated incandescent reflector lamps; (14) bottle-
243 type water dispensers; (15) commercial hot food holding cabinets; (16)
244 portable electric spas; (17) walk-in refrigerators and walk-in freezers;
245 (18) pool heaters; [and] (19) compact audio products; (20) televisions;
246 (21) digital versatile disc players; (22) digital versatile disc recorders;
247 and (23) any other products as may be designated by the office in
248 accordance with subdivision (3) of subsection (d) of this section.

249 (c) The provisions of this section do not apply to (1) new products
250 manufactured in the state and sold outside the state, (2) new products
251 manufactured outside the state and sold at wholesale inside the state
252 for final retail sale and installation outside the state, (3) products
253 installed in mobile manufactured homes at the time of construction, or
254 (4) products designed expressly for installation and use in recreational
255 vehicles.

256 (d) (1) The office, in consultation with the Department of Public
257 Utility Control, shall adopt regulations, in accordance with the

258 provisions of chapter 54, to implement the provisions of this section
259 and to establish minimum energy efficiency standards for the types of
260 new products set forth in subsection (b) of this section. The regulations
261 shall provide for the following minimum energy efficiency standards:

262 (A) Commercial clothes washers shall meet the requirements shown
263 in Table P-3 of section 1605.3 of the California Code of Regulations,
264 Title 20: Division 2, Chapter 4, Article 4;

265 (B) Commercial refrigerators and freezers shall meet the August 1,
266 2004, requirements shown in Table A-6 of said California regulation;

267 (C) Illuminated exit signs shall meet the version 2.0 product
268 specification of the "Energy Star Program Requirements for Exit Signs"
269 developed by the United States Environmental Protection Agency;

270 (D) Large packaged air-conditioning equipment having not more
271 than seven hundred sixty thousand BTUs per hour of capacity shall
272 meet a minimum energy efficiency ratio of 10.0 for units using both
273 electric heat and air conditioning or units solely using electric air
274 conditioning, and 9.8 for units using both natural gas heat and electric
275 air conditioning;

276 (E) Large packaged air-conditioning equipment having not less than
277 seven hundred sixty-one thousand BTUs per hour of capacity shall
278 meet a minimum energy efficiency ratio of 9.7 for units using both
279 electric heat and air conditioning or units solely using electric air
280 conditioning, and 9.5 for units using both natural gas heat and electric
281 air conditioning;

282 (F) Low voltage dry-type distribution transformers shall meet or
283 exceed the energy efficiency values shown in Table 4-2 of the National
284 Electrical Manufacturers Association Standard TP-1-2002;

285 (G) Torchiere lighting fixtures shall not consume more than one
286 hundred ninety watts and shall not be capable of operating with lamps
287 that total more than one hundred ninety watts;

288 (H) Traffic signal modules shall meet the product specification of
289 the "Energy Star Program Requirements for Traffic Signals" developed
290 by the United States Environmental Protection Agency that took effect
291 in February, 2001, except where the department, in consultation with
292 the Commissioner of Transportation, determines that such
293 specification would compromise safe signal operation;

294 (I) Unit heaters shall not have pilot lights and shall have either
295 power venting or an automatic flue damper;

296 (J) On or after January 1, 2009, residential furnaces and boilers
297 purchased by the state shall meet or exceed the following annual fuel
298 utilization efficiency: (i) For gas and propane furnaces, ninety per cent
299 annual fuel utilization efficiency, (ii) for oil furnaces, eighty-three per
300 cent annual fuel utilization efficiency, (iii) for gas and propane hot
301 water boilers, eighty-four per cent annual fuel utilization efficiency,
302 (iv) for oil-fired hot water boilers, eighty-four per cent annual fuel
303 utilization efficiency, (v) for gas and propane steam boilers, eighty-two
304 per cent annual fuel utilization efficiency, (vi) for oil-fired steam
305 boilers, eighty-two per cent annual fuel utilization efficiency, and (vii)
306 for furnaces with furnace air handlers, an electricity ratio of not more
307 than 2.0, except air handlers for oil furnaces with a capacity of less than
308 ninety-four thousand BTUs per hour shall have an electricity ratio of
309 2.3 or less;

310 (K) On or after January 1, 2010, metal halide lamp fixtures designed
311 to be operated with lamps rated greater than or equal to one hundred
312 fifty watts but less than or equal to five hundred watts shall not
313 contain a probe-start metal halide lamp ballast;

314 (L) Single-voltage external AC to DC power supplies manufactured
315 on or after January 1, 2008, shall meet the energy efficiency standards
316 of table U-1 of section 1605.3 of the January 2006 California Code of
317 Regulations, Title 20, Division 2, Chapter 4, Article 4: Appliance
318 Efficiency Regulations. This standard applies to single voltage AC to
319 DC power supplies that are sold individually and to those that are sold

320 as a component of or in conjunction with another product. This
321 standard shall not apply to single voltage external AC to DC power
322 supplies sold with products subject to certification by the United States
323 Food and Drug Administration. A single-voltage external AC to DC
324 power supply that is made available by a manufacturer directly to a
325 consumer or to a service or repair facility after and separate from the
326 original sale of the product requiring the power supply as a service
327 part or spare part shall not be required to meet the standards in said
328 table U-1 until five years after the effective dates indicated in the table;

329 (M) On or after January 1, 2009, state regulated incandescent
330 reflector lamps shall be manufactured to meet the minimum average
331 lamp efficacy requirements for federally-regulated incandescent
332 reflector lamps contained in 42 USC 6295(i)(1)(A). Each lamp shall
333 indicate the date of manufacture;

334 (N) On or after January 1, 2009, bottle-type water dispensers,
335 commercial hot food holding cabinets, portable electric spas, walk-in
336 refrigerators and walk-in freezers shall meet the efficiency
337 requirements of section 1605.3 of the January 2006 California Code of
338 Regulations, Title 20, Division 2, Chapter 4, Article 4: Appliance
339 Efficiency Regulations. On or after January 1, 2010, residential pool
340 pumps shall meet said efficiency requirements;

341 (O) On or after January 1, 2009, pool heaters shall meet the
342 efficiency requirements of sections 1605.1 and 1605.3 of the January
343 2006 California Code of Regulations, Title 20, Division 2, Chapter 4,
344 Article 4: Appliance Efficiency Regulations.

345 (P) On or after January 1, 2011, compact audio products, digital
346 versatile disc players and digital versatile disc recorders shall meet the
347 requirements shown in Table V-1 of section 1605.3 of the November
348 2009 California Code of Regulations, Title 20, Division 2, Chapter 4,
349 Article 4.

350 (Q) On or after January 1, 2011, televisions manufactured on or after

351 the effective date of this section shall meet the requirements shown in
352 Table V-2 of section 1605.3 of the November 2009 California Code of
353 Regulations, Title 20, Division 2, Chapter 4, Article 4.

354 (R) In addition to the requirements of subparagraph (Q) of this
355 subdivision, televisions manufactured on or after January 1, 2011, shall
356 meet the efficiency requirements of sections 1605.3(v)(3)(A),
357 1605.3(v)(3)(B) and 1605.3(v)(3)(C) of the November 2009 California
358 Code of Regulations, Title 20, Division 2, Chapter 4, Article 4.

359 (2) Such efficiency standards, where in conflict with the State
360 Building Code, shall take precedence over the standards contained in
361 the Building Code. Not later than July 1, 2007, and biennially
362 thereafter, the office, in consultation with the Department of Public
363 Utility Control, shall review and increase the level of such efficiency
364 standards by adopting regulations in accordance with the provisions
365 of chapter 54 upon a determination that increased efficiency standards
366 would serve to promote energy conservation in the state and would be
367 cost-effective for consumers who purchase and use such new products,
368 provided no such increased efficiency standards shall become effective
369 within one year following the adoption of any amended regulations
370 providing for such increased efficiency standards.

371 (3) (A) The office, in consultation with the Department of Public
372 Utility Control, shall adopt regulations, in accordance with the
373 provisions of chapter 54, to designate additional products to be subject
374 to the provisions of this section and to establish efficiency standards
375 for such products upon a determination that such efficiency standards
376 [(A)] (i) would serve to promote energy conservation in the state, [(B)]
377 (ii) would be cost-effective for consumers who purchase and use such
378 new products, and [(C)] (iii) that multiple products are available which
379 meet such standards, provided no such efficiency standards shall
380 become effective within one year following their adoption pursuant to
381 this subdivision.

382 (B) The office, in consultation with the Multi-State Appliance

383 Standards Collaborative, shall identify additional appliance and
384 equipment efficiency standards. No later than six months after
385 adoption of an efficiency standard by a cooperative member state
386 regarding a product for which no equivalent Connecticut or federal
387 standard currently exists, the office shall adopt regulations in
388 accordance with the provisions of chapter 54 adopting such efficiency
389 standard unless the office makes a specific finding that such standard
390 does not meet the criteria in subparagraph (A) of this subdivision.

391 (e) On or after July 1, 2006, except for commercial clothes washers,
392 for which the date shall be July 1, 2007, commercial refrigerators and
393 freezers, for which the date shall be July 1, 2008, and large packaged
394 air-conditioning equipment, for which the date shall be July 1, 2009, no
395 new product of a type set forth in subsection (b) of this section or
396 designated by the office may be sold, offered for sale, or installed in
397 the state unless the energy efficiency of the new product meets or
398 exceeds the efficiency standards set forth in such regulations adopted
399 pursuant to subsection (d) of this section.

400 (f) The office, in consultation with the Department of Public Utility
401 Control, shall adopt procedures for testing the energy efficiency of the
402 new products set forth in subsection (b) of this section or designated
403 by the department if such procedures are not provided for in the State
404 Building Code. The office shall use United States Department of
405 Energy approved test methods, or in the absence of such test methods,
406 other appropriate nationally recognized test methods. The
407 manufacturers of such products shall cause samples of such products
408 to be tested in accordance with the test procedures adopted pursuant
409 to this subsection or those specified in the State Building Code.

410 (g) Manufacturers of new products set forth in subsection (b) of this
411 section or designated by the office shall certify to the secretary that
412 such products are in compliance with the provisions of this section,
413 except that certification is not required for single voltage external AC
414 to DC power supplies and walk-in refrigerators and walk-in freezers.

415 All single voltage external AC to DC power supplies shall be labeled as
416 described in the January 2006 California Code of Regulations, Title 20,
417 Section 1607 (9). The office, in consultation with the Department of
418 Public Utility Control, shall promulgate regulations governing the
419 certification of such products. The secretary shall publish an annual list
420 of such products.

421 (h) The Attorney General may institute proceedings to enforce the
422 provisions of this section. Any person who violates any provision of
423 this section shall be subject to a civil penalty of not more than two
424 hundred fifty dollars. Each violation of this section shall constitute a
425 separate offense, and each day that such violation continues shall
426 constitute a separate offense.

This act shall take effect as follows and shall amend the following sections:		
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Section 1	<i>from passage</i>	16a-48
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Statement of Purpose:

To add products to be subjected to certain efficiency standards and to provide for the Office of Policy and Management to identify additional product and equipment efficiency standards.

[Proposed deletions are enclosed in brackets. Proposed additions are indicated by underline, except that when the entire text of a bill or resolution or a section of a bill or resolution is new, it is not underlined.]